

Comment received:

ATS = Appalachian Technical Services, Phil Mullins

CBF = Chesapeake Bay Foundation, Joe Tannery, Virginia Staff Attorney

EPA = U.S. Environmental Protection Agency, Cheryl Atkinson, USEPA Region 3

SELCL = Southern Environmental Law Center, Mary Varson Cromer, Associate Attorney

USFWS = United States Fish and Wildlife Service, Karen Mayne, Supervisor, Virginia Field Office

The public comment period for the Straight Creek Use Attainability Analysis (UAA) study plan submitted by Biological Monitoring, Inc. on behalf of the Virginia Mining Issues Group (Group) was from December 24, 2007 – February 14, 2008. Comment was received from the entities listed above. The following bullets summarize key themes within comment received:

1. The TMDL Implementation Plan (IP) should be in place prior to conducting a UAA.
2. The proposed “predictive tool” described in the study plan to demonstrate the highest attainable aquatic life use should be peer reviewed by EPA and other stakeholders prior to utilization in the UAA.
3. The plan needs to address several points that are inadequately addressed such as:
 - There is a lack of specificity within the study plan concerning the role of TDS, conductivity, and TSS with regards to the impairment of Straight Creek and point and nonpoint sources of those parameters.
 - Lack of examination of the potential of designated use attainment.
 - The use of averaged biological condition scores masks favorable data that may indicate the aquatic life use is attainable.
4. The plan tends to focus on physical anthropogenic alterations to habitat within the creek and not on pollutant based stressors.
5. The EPA approved TMDL would indicate that designated uses can be met which raises the question, “Why do a UAA?”
6. DEQ should not approve a UAA study plan for Straight Creek until it is reviewed and approved by EPA and USFWS.

Use Attainment, TMDL, & Related Issues	
It is unclear why this Study Plan is being conducted prior to the TMDL Implementation Plan’s analysis of the reasonable best management practices and cost-effective remediation which could indicate that the aquatic life use for Straight Creek is attainable. The aquatic life use is, at a minimum, the use achieved when effluent limits are imposed for point source discharges and cost-effective BMPs are in place for non-point source discharges. A UAA may be premature as the TMDL did not establish a required reduction from permitted and nonpoint sources and the TMDL has not been implemented. A UAA that effectively considers what is attainable in the future should guide the determination of the highest attainable use for Straight Creek.	EPA
Based upon USFWS macroinvertebrate samples from 5 stations on Straight Creek, they believe VA Stream Condition Index scores will improve with TMDL corrective measures implemented. The study plan does not present specific tasks to: a) evaluate the watershed	USFWS

<p>for 2 important water quality parameters identified by the TMDL as most probable stressors, b) evaluate the feasibility of treatment, and c) evaluate the potential for attainment of aquatic life use if treatment of those 2 parameters is implemented.</p> <p>Existing research and analyses indicate that an aquatic life designated use is attainable in Straight Creek, thus under current law and regulations the Board is legally barred from the removing or lowering the designated use for the waterbody. The TMDLs created by the VA Mining Issues Group (Group) and DEQ were “designed to meet the applicable water quality standards” and that there “is reasonable assurance the TMDLs can be met”. TMDL implementation plans and other recovery efforts must be given a chance to work, and any tools used to forecast biological recovery in-stream must project far enough into the future to capture the improvement.</p> <p>Full public comment is not possible until the SWCB adopts and makes public a final Implementation Plan designed to remediate the creek’s current problems. Concerns that the industry has been allowed to alter the determination of what is wrong in Straight Creek, is independently assessing what would be required to fix the problems, and now asks to study whether such remediation is feasible.</p> <p>Road and railroad construction, stream relocation, channel modification, residential and commercial development and resource extraction have drastically reduced the available riparian habitats and taken a toll on the aquatic ecosystem of the stream though most of these effects are physical in nature and not chemical. TDS concentrations in the stream are highest during dry seasons and indicate there must be some natural geohydrologic component of TDS production that is not fully understood at this time.</p>	<p>CBF</p> <p>SELC</p> <p>ATS</p>
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<p>Study Plan Issues</p> <p>The study plan should describe the exact portions of the mainstem and tributaries of Straight Creek that are being considered in the UAA. The plan presents a worst case scenario for existing conditions and ignores readily available data that indicates the creek does attain or has attained a better condition than indicated in Attachment III of the study plan. EPA is concerned that the study plan is making hypotheses prior to the completion of the UAA. They recommend that the authors explain how natural versus human caused sources of total dissolved solids (TDS) are addressed in establishing reference condition for Straight Creek and evaluating both existing use and potential for water quality improvements and should include a review of all available historical water quality data, including those parameters which do not have numeric water quality criteria, but which are known to be toxic to aquatic life (e.g. TDS and the component ions).</p> <p>They are of the opinion that components of the UAA study plan remain incomplete. The plan sets forth no steps to evaluate TDS treatment options or feasibility for the various and specific sources of TDS to the watershed.</p> <p>The proposed study plan, in particular the proposed “predictive tool,” is fundamentally flawed in numerous ways and cannot ensure that the UAA will contain relevant or</p>	<p>EPA</p> <p>USFWS</p> <p>CBF</p>
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<p>accurate information necessary to support a Board rulemaking or approval by the Environmental Protection Agency (EPA). The plan fails to accurately evaluate impacts on downstream uses, listed endangered or threatened species, properly analyze the contribution of past and present mining operations to the impairment, economic and social costs and benefits, and the proposed predictive tool is overly broad and fails to incorporate local stream characteristics critical to determining attainability in the creek. The Group's use of average values masks underlying favorable data and allows the Group to inaccurately depict the attainability of the use. The plan appears to have been designed to achieve a pre-determined outcome instead of being based upon credible and impartial data and conclusions.</p> <p>The plan fails to acknowledge the industry's contributions to the problems in Straight Creek and its tributaries. The study must fully assess the extent of damage caused by past coal waste spills and determine the extent to which recovery is ongoing. The failure to mention the 1996 Lone Mountain Processing coal slurry spills and to address TDS pollution represents significant bias in structuring the study. The plan includes no indication of how the industry will determine whether the costs of remediation are so exorbitant as to cause substantial and widespread economic and social impact. The study plan demonstrates that the UAA contemplated by the industry could not meet the high burden of proof necessary to lower a designated use. Anecdotal and first hand accounts regarding the level of aquatic life attainment would be subjective, unreliable, and should not be used.</p> <p>They have reviewed the study plan and consider it to be a logical and scientific approach for determining what designated uses can be achieved.</p>	<p>SELC</p> <p>ATS</p>
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<p>Study Plan Approval Issues & General Recommendations</p> <p>EPA will review and approve or disapprove state WQS revisions based on supporting record and whether the change is consistent with the Clean Water Act and implementing regulations. They strongly suggest that before the predictive tool is developed and used in the UAA, it should be peer reviewed by EPA and other stakeholders. Individual specific recommendations regarding the Straight Creek study plan are found in EPA Comments on Aquatic Life Use Attainability Analysis Study Plan received via email and dated 2/14/2008.</p> <p>It is inappropriate to approve the UAA study plan until the TMDL implementation Plan is complete. They recommend that DEQ disapprove the study plan at this time due to their position that a UAA for an impaired waterbody should commence after TMDL corrective measures have been fully implemented.</p> <p>They request that DEQ and SWCB deny the approval of the proposed UAA study plan and initiate a rulemaking to establish detailed statewide protocols and procedures for UAAs to ensure objectivity and scientific accuracy. They are deeply troubled by indications that the policies and procedures established by this UAA will dictate agency action on all future UAAs. It is requested that DEQ and SWCB endeavor to create UAA guidance and they</p>	<p>EPA</p> <p>USFWS</p> <p>CBF</p>
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<p>suggest engaging the DEQ Academic Advisory Committee to develop such guidance and DEQ should require input on the study plan from third party experts. They find that the study plan must not be approved by DEQ until it is reviewed and approved by EPA's Freshwater Biology Lab in Wheeling, WV and the Virginia Office of the USFWS. They recommend the UAA study plan be elevated to the Board with a recommendation to deny.</p> <p>The SWCB pre-condition on allowing the industry to go forward with this study has not been met and any consideration of the industry's study plan is premature. Due to the substantial problems with bias in the plan and the related documents, the TMDL and the draft implementation plan, the SWCB should not allow the Group to go forward with the UAA. They request if the industry is allowed to go forward with the UAA that the product of its study be written clearly and intelligibly and those conducting the UAA study should solicit comments and maintain contact with scientists from all agencies and groups working on water quality in the watershed.</p>	<p>SELC</p>
<p>They fully support the UAA study plan and encourage DEQ to grant timely approval.</p>	<p>ATS</p>

List of Acronyms:

BMP = Best Management Practices
DEQ = Department of Environmental Quality
SWCB = State Water Control Board
TDS = Total Dissolved Solids
TMDL = Total Maximum Daily Load
TSS = Total Suspended Solids
UAA = Use Attainability Analysis